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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,787	06/19/2006	Norbert Klingelhage	06-393	8540
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EXAMINER				
FLETCHER III, WILLIAM P				
ART UNIT		PAPER NUMBER		
1792				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/583,787

Applicant(s)

KLINGELHAGE ET AL.

Examiner

William P. Fletcher III

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) 18-21 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 19 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/GS-08)
Paper No(s)/Mail Date 18 SEP 2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The preliminary amendment filed 19 June 2006 is noted.
2. Claims 1-21 remain pending.

Election/Restrictions

3. Applicant's election without traverse of claims 1-17 in the reply filed on 15 October 2009 is acknowledged.
4. Claims 18-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 15 October 2009.

Priority

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

6. The information disclosure statement filed 18 September 2006 has been considered.

Drawings

7. The drawings were received on 19 June 2006. These drawings are acceptable.

Specification

8. The abstract of the disclosure is objected to because it recites phrases that may be implied ("The invention relates to...") and refers to the purported merits of the

invention ("good properties and greater economic viability"). Correction is required.

See MPEP § 608.01(b).

9. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

10. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claim 1

i. While it appears that the term "actively-breathing" is a metaphorical descriptor for the composite, the precise meaning of the term is unclear and impossible to determine from the instant disclosure. For the purposes of searching and applying prior art, the Examiner has interpreted the term as meaning "water-vapor permeable." Clarification is required.

ii. This claim recites the indefinite phrase "a layer consisting...mainly of PU." The transitional phrase "consisting of" closes the claim to *all* other elements other than those recited. See MPEP 2111.03. Yet the phrase "mainly of PU" implies that there is/are other, unnamed materials that may be included with the PU, which belies the phrase "consisting of," and is further indefinite since the precise nature and amount of the other, unnamed elements is unclear.

iii. The term "high" is a relative term which renders the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of

ordinary skill in the art would not be reasonably apprised of the scope of the invention. it is unclear how much PU must be present or how little PU may be present to still be considered "high PU content" within the context of the invention.

iv. The phrases "- is extruded" and "- pressed" are indefinite since the phrases do not recite precisely *what* is extruded and pressed.

B. Claim 4 and 14-16

i. These claims are indefinite since they appear to recite a third layer of bonding agent in addition to the PP and PU layers. The use of the transitional phrase "consisting of" in independent claim 1 appears to close the structure to such an additional layer.

ii. The phrase "is used" is indefinite since the precise nature and extent of the use is not clear.

C. Claims 6, 7, 9, 13, and 17

i. The phrase "in particular" renders the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

D. Claims 8, 13, and 17

i. These claims recite several trademarks. The relationship between a trademark and the product it defines is sometimes indefinite, uncertain, and arbitrary. The formula or characteristics of the product may change from time to time and yet it may continue to be sold under the same

trademark. In patent specifications, every element or ingredient of the product should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is meant. Arbitrary trademarks which are liable to mean different things at the pleasure of manufacturers do not constitute such language. See *Ex Parte Kattwinkle*, 12 USPQ 11 (Bd. App. 1931). The second paragraph of 35 USC 112 states: "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Because of the changeable nature of trademarks, the scope of the claim is not clear to a hypothetical person possessing the ordinary level of skill in the pertinent art and, therefore, fails to serve the notice function required by 35 USC 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000).

E. Claims 14-16

i. The phrase "the bonding agent" lacks antecedent basis in these claims since not bonding agent is recited in independent claim 1.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

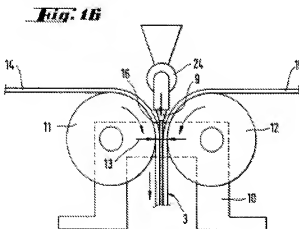
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1, 2, 4, 5, 9-11, and 14-16, are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 700 779 A2.

A. Since this reference was cited in the International Preliminary Examination Report for PCT/EP2004/014233, of which the instant application is the National Stage Entry, Applicant is presumed to be familiar with the reference and its teachings.

B. Claims 1, 9, and 10

i. The claimed process is anticipated by this reference in which a water-vapor permeable PU layer is applied to a PP substrate:

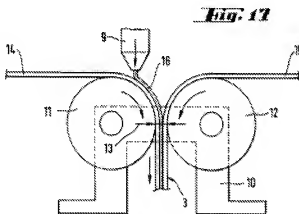


C. Claim 2

i. As illustrated above, extrusion of PU (16) occurs directly in the region of pressing.

D. Claims 4, 5, 11, and 14-16

- i. The Examiner notes that, while the claim is open to the bonding agent's being different from the PU product, it does not have to be. As such, since the PU (16) serves to bond PP substrates (14) and (15) together, it reads on the claimed bonding agent. The region of the thickness of the PU layer (16) closest the PP substrates (14) and (15) thus reads on the claimed bonding agent between the PU product and the PP nonwoven.
- ii. Further, insofar as this reference also discloses an embodiment in which a portion of the PU layer (16) is applied before later portions of the same layer,



- and any portion of the PU layer (16) may also satisfy the claimed "bonding agent" (see above), this embodiment satisfies the claimed providing the bonding agent "prior to applying the PU layer."
- iii. The above-mentioned embodiments further satisfy the limitations of claims 11 and 14-16.

- iv. The Examiner notes that the above is consistent with the claimed structure "consisting of" PU and PP.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 700 779 A2.

A. Claim 6

- i. While EP '779 does not expressly teach spraying the PU material onto the PP non-woven, it is the Examiner's position that any known means of applying a liquid coating material may advantageously be used to apply the PU. It is the Examiner's position that spraying is such a

means and would have been readily apparent to one skilled in the art as an obvious expedient for applying the PU.

B. Claims 7, 8, and 17

i. While EP '779 does not expressly teach the limitations of these claims, it is the Examiner's position that, since the reference is not limited to the preferred PU composition, any known PU material capable of bonding PP may advantageously be used. It is the Examiner's position that such a reactive hot-melt is such a material and would have been readily apparent to one skilled in the art as an obvious expedient for joining the two PP substrates, absent evidence to the contrary.

ii. Further, as noted above, spraying would have been obvious. Since spraying involves the impinging of droplets of coating material on a surface, at least the initial application of the material (before complete coverage is achieved) reads on the claimed wetted and clear regions.

iii. Finally, when the PU layer is interpreted as the bonding agent material as well (see above), the limitation requiring that it be "so applied onto the PP nonwoven as a bonding agent that it has not cooled down yet when coming into contact with the extruded PU product."

18. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 700 779 A2, as applied to claim 1 above, further in view of US 2005/0227086 A1.

A. EP '779 does not expressly recite that the PP non-woven is preheated.

- B. US '086 teaches a process for the formation of a roof underlay in which a PP substrate is coated with PU. The PP substrate fabric is preheated as an added means of obtaining maximum adhesion of the PU [0045].
- C. Consequently, it would have been obvious to one skilled in the art to modify the process of EP '779 so as to preheat the non-woven for this reason.
19. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 700 779 A2, as applied to claim 1 above, further in view of US 2005/0097857 A1.
- A. EP '779 does not teach the claimed mixture of materials.
- B. US '857 teaches that, in order to improve the adhesion of materials to PP, maleic anhydride-modified polyolefin may be utilized [0034-0035]. This reference further teaches that incorporation of a bonding agent into PU material applied to a PP substrate will further improve adhesion [0041].
- C. Consequently, it would have been obvious to incorporate an adhesion promoter into the PU to achieve that end. It would have been further obvious to utilize a known adhesion promoter of PP substrates, such as the disclosed maleic anhydride-modified polyolefin.
- D. Finally, with specific respect to 13, the amount of adhesion promoter incorporated is a result-effective variable, affecting the degree of adhesion achieved. Consequently, it would have been obvious to one skilled to optimize the amount of adhesion promoter by routine experimentation, absent evidence of criticality.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2003/0077964 A1, also cited in the International Preliminary Examination Report, is representative of the prior art. Attached hereto is also said report.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Sunday, 5:00 AM - 12:00 PM and Monday through Friday, 5:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/William Phillip Fletcher III/
Primary Examiner, Art Unit 1792

February 15, 2010